(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 1 February 2001 (01.02.2001)

PCT

(10) International Publication Number WO 01/07471 A3

C12N 15/12, (51) International Patent Classification⁷: 5/10, C07K 14/47, 16/18, C12Q 1/68, A61K 38/17, G01N 33/50, A01K 67/027

(21) International Application Number: PCT/US00/19948

(22) International Filing Date: 2i July 2000 (21.07.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

US 21 July 1999 (21.07.1999) 60/145,075 8 September 1999 (08.09.1999) US 60/153,129 US 60/164,647 10 November 1999 (10.11.1999)

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

ÙS	60/145,0	75 (CIP)
Filed on	21 July 1999 (21.	07.1999)
US	60/153,1	29 (CIP)
Filed on	8 September 1999 (08.	09.1999)
US	60/164,6	47 (CIP)
Filed on	10 November 1999 (10.	11.1999)

(71) Applicant (for all designated States except US): INCYTE GENOMICS, INC. [US/US]; 3160 Porter Drive, Palo Alto, CA 94304 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HILLMAN, Jennifer, L. [US/US]; 230 Monroe Drive #17, Mountain View, CA 94040 (US). LAL, Preeti [IN/US]; 2382 Lass Drive, Santa Clara, CA 95054 (US). TANG, Y., Tom [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). YUE, Henry [US/US]; 826 Lois Avenue, Sunnyvale, CA 94087 (US). AU-YOUNG, Janice [US/US]; 233 Golden Eagle Lane, Brisbane, CA 94005 (US). BANDMAN, Olga [US/US]: 366 Anna Avenue, Mountain View, CA 94043 (US). AZIMZAI, Yalda [US/US]; 5518 Boulder

Canyon Drive, Castro Valley, CA 94552 (US). YANG, Junming [CN/US]: 7125 Bark Lane, San Jose, CA 95129 (US). LU, Dyung, Aina, M. [US/US]; 233 Coy Drive, San Jose, CA 95123 (US). BAUGHN, Mariah, R. [US/US]; 14244 Santiago Road, San Leandro. CA 94577 (US). PATTERSON, Chandra [US/US]; 490 Sherwood Way #1, Menlo Park, CA 94025 (US). SHAH, Purvi [IN/US]; 1608 Queen Charlotte Drive #5, Sunnyvale, CA 94087 (US).

- (74) Agents: HAMLET-COX, Diana et al.; Incyte Genomics, Inc., 3160 Porter Drive, Palo Alto, CA 94304 (US).
- (81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA. BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- (88) Date of publication of the international search report: 17 January 2002
- (15) Information about Correction: Previous Correction:

see PCT Gazette No. 20/2001 of 17 May 2001, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CELL CYCLE AND PROLIFERATION PROTEINS

(57) Abstract: The invention provides human cell cycle and proliferation proteins (CCYPR) and polynucleotides which identify and encode CCYPR. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of CCYPR.

INTERNATIONAL SEARCH REPORT

Inte al Application No PCT/US 00/19948

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/12 C12N5/10 CO7K14/47 CO7K16/18 C12Q1/68 G01N33/50 A01K67/027 A61K38/17 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) C12N C07K C12Q A61K G01N A01K IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. NEMOTO Y ET AL: "Recruitment of an X 1,3,6,7, alternatively spliced form of synaptojanin 9-11,13, 2 to mitochondria by the interaction with 15,19, the PDZ domain of a mitochondrial outer 22,25,26 membrane protein" EMBO JOURNAL., vol. 18, no. 11, 1 June 1999 (1999-06-01), pages 2991-3006, XP002156389 Rat OMP25: 88.966% identity in 145 aa overlap with SeqIdNo.1 / 75.835% identity in 1167 nt overlap with SeqIdNo.55 WO 98 45436 A (GENETICS INST) X 3,11,12 15 October 1998 (1998-10-15) SeqIdNo.1414: 99.8% identity in 432 bp overlap with SegIdNo.55 -/--Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to "L" document which may throw doubts on priority claim(s) or Involve an inventive step when the document is taken alone which is cited to establish the publication date of another "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the "O" document referring to an oral disclosure, use, exhibition or document is combined with one or more other such docuother means ments, such combination being obvious to a person skilled in the art. "P" document published prior to the international filing date but "&" document member of the same patent family later than the priority date claimed Date of the actual completion of the international search Date of mailing of the international search report 4 January 2001 **25** 04 2001 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Lonnoy, 0 Fax: (+31-70) 340-3016

2

INTERNATIONAL SEARCH REPORT

Inte 31 Application No
PCT/US 00/19948

		PC1/05 0	
C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to daim No.
E	EP 1 033 401 A (GENSET) 6 September 2000 (2000-09-06) SeqIdNo.3623: 100.000% identity in 374 nt overlap with SeqIdNo.55 -& DATABASE GENESEQ [Online] E.B.I., Hinxton. U.K.; Accession Number: C03625, 6 October 2000 (2000-10-06) DUMAS M ET AL: "Human secreted protein 5' EST, SeqIdNo.3623" XP002156390 abstract		1,3,6,7,9-15
A	WO 97 12962 A (COLD SPRING HARBOR LAB; BEACH DAVID (US); CALIGIURI MAUREEN (US);) 10 April 1997 (1997-04-10)		

PCT/US 00/19948

INTERNATIONAL SEARCH REPORT

Box i	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This Inte	ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1.	Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2.	Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This Inter	rnational Searching Authority found multiple inventions in this international application, as follows:
	see additional sheet
	As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
	As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: see further information sheet invention group 1.
Remark o	The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

RTHER INFORMATION CO	NTINUED FROM P	CT/ISA/ 210			
This Internationa inventions in this	l Searching Aut s international	hority found application,	multiple (gr as follows:	oups of)	
1. Claim : 1					·

INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/US 00/19948

Patent document cited in search report		Publication date		atent family nember(s)	Publication date
WO 9845436	A	15-10-1998	AU EP	6891098 A 0973896 A	30-10-1998 26-01-2000
EP 1033401	Α	06-09-2000	NONE		
WO 9712962	A	10-04-1997	US EP	6001619 A 0857205 A	14-12-1999 12-08-1998